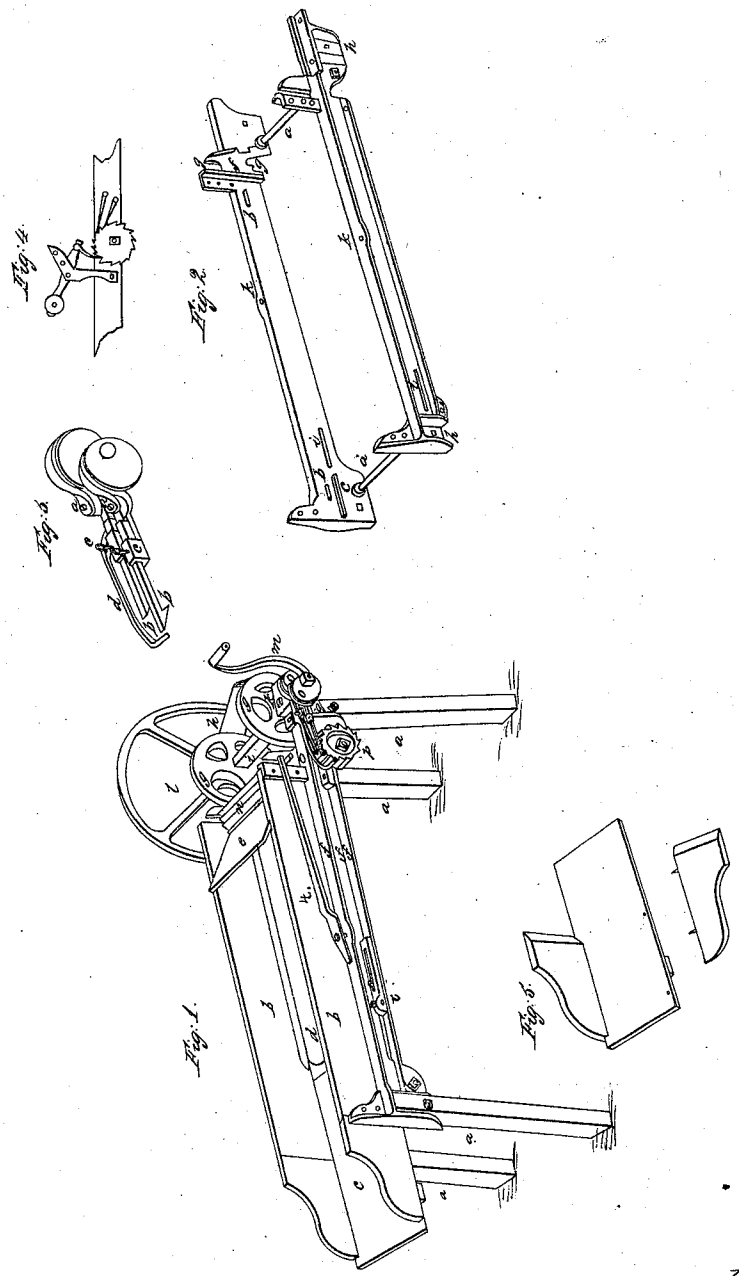
J. S. Eastman.

Straw Cutter.

No. 600. Patented Feb. 15, 1838.



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UNITED STATES PATENT OFFICE.

JONATHAN S. EASTMAN, OF BALTIMORE, MARYLAND.

STRAW-CUTTER.

Specification of Letters Patent No. 600, dated February 15, 1838.

To all whom it may concern:

Be it known that I, JONATHAN S. EASTMAN, of the city of Baltimore and State of Maryland, have invented a new and useful improvement on the straw-cutter heretofore manufactured by myself, and the principle of which I patented in 1822; and I do hereby declare that the following is a full and exact description.

Figure 1 represents the machine in perspective; the general appearance being the same as the original; the exceptions will be noticed in course of the description. *a*, *a*, the legs, here represented as wood but they may be iron; *b*, *b*, the (wood) sides of the box; *c*, the (wood) bottom which slides under the sides, reaching to near the apron *d*, which is stretched on two rollers, one at each end; *e*, front board to guide the straw between the rollers; *f*, *f*, *f*, iron side rail; *g*, *g*, cylinder heads on which the knives are placed, one of which is seen at *h*; *i*, shaft on which is placed the cylinder heads; *k*, seats and caps on which the shafts rest and which may slide backward and forward by regulating screws and nuts, to adjust the knife to the steel; *l* fly wheel and *m*, crank both on main shaft; *n*, upper feed roller; *o*, *o*, double eccentric on main shaft with two hands playing into the ratchet *p*, on end of lower feed roller, there is with the hands a hand or dog which prevents the reaction of the lower feed roller; *q*, spring pressing on journal of the upper feed roller. *r*, is slide resting on the flange of rail, with screw and nut for adjusting and tightening the apron.

Fig. 2, represents the iron frame simply without the legs, box or any of the moving machinery. *a*, *a*, are wrought iron cross bars, with shoulders on the inside of the side rails, and with screws and nuts on the outside. The rails are plain inside, with the exception of the small projections, *b*, *b*, as rests for the bottom of the side pieces of the box and *c*, to support the bottom which slides in between *c* and the side, and also the inner upright projection *f*, which projects inward the thickness of the side and extends from the bottom of the rail to about 6 inches above the rail, having the slots, *g*, *g*, for the journals of the feed rollers. The outside of the rail has a flange nearly the whole length at the top and also one at the bottom for the purpose of strength. *h*, *h*, are sockets in which the upper end of the legs are fitted and bolted. The legs are made to stand bracing the feet standing out forward sidewise and backward; *i*, *i*, slots through which the journals of the back apron roller passes.

Fig. 3, represents the double eccentric detached from the shaft; the eccentrics have grooves in them to receive clamps around them; the clamps are regulated or tightened by screws *a*, *a*, and they are attached to the hands, *b*, *b*, by shanks and screws or pins. These hands play into the ratchet. The shanks and pins are *c*, *c*. *d*, is a hand, hinged on the rail and plays into the ratchet to prevent the reaction of the lower roller.

Fig. 4, represents the feeding apparatus as formerly used by me.

Fig. 5, represents the tail of the box, and the manner of rendering the machine more portable.

The object and advantages of my present improvement are, 1st, to save freight in shipment or transportation, which saving will be from one half to two-thirds over the old machine by taking off the legs and the hind part of the box. About seven-eighths of these machines are shipped off to a considerable distance. 2ndly, making the frame of iron, it is much stronger and without the liability of shrinking, as timber will shrink, and put the frame out of square, which causes the knives to strike the steel to their injury or destruction, but with my present iron frame, every part is kept in place no part of it is liable to give in the least degree. 3rdly, my present feeding apparatus is more simple, more effective, easier kept in order, and at least twice as durable as the former plan. The whole machine is much stronger, as well as more durable and can be manufactured with much more facility and at nearly the usual price of the instrument.

What I claim as my invention is—

1. The iron frame constructed and combined as herein described.

2. I claim the manner of attaching and detaching the hinder part of the box for convenience of packing, &c.

3. I claim the double eccentric feeding apparatus in combination with the operative parts of the machine as herein described.

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Witnesses:

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